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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,764	07/30/2003	Akira Aoto	10517/80	7701

23838 7590 06/14/2005

KENYON & KENYON
1 BROADWAY
NEW YORK, NY 10004

EXAMINER

RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,764

Applicant(s)

AOTO, AKIRA

Examiner

Mark Ruthkosky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/30/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement filed 7/30/2003 has been placed in the application file, and the information referred to therein has been considered as to the merits.

Drawings

The drawings filed on 7/30/2003 have been approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Meacher et al. (US 5,858,569.)

The instant claims are to a separator for a fuel cell comprising a metal plate including a gas passage portion and a contact portion in a part other than the gas passage portion, the contact portion being brought into contact with a terminal of a cell voltage monitor attached to the fuel cell, wherein a surface treatment applied to the gas passage portion is different from a surface treatment applied to the contact portion. In this interpretation of the claims, it is noted that the claim is to a separator comprising a metal plate including a gas passage portion and a contact portion in a part other than the gas passage portion wherein a surface treatment applied to the gas passage portion is different from a surface treatment applied to the contact portion. The limitation that the contact portion is brought into contact with a terminal of a cell voltage monitor attached to the fuel cell is not given patentable weight, as it does not further define a separator. It merely states an intended use for the plate.

Meacher et al. (US 5,858,569) teaches a separator for a fuel cell comprising a metal plate including a carbon coated gas passage portion and a contact portion in a part other than the gas passage portion, wherein a surface treatment applied to the gas passage portion is different from a surface treatment applied to the contact portion. The untreated frame/stainless steel section is a contact portion other than the gas passage portion and also serves as an attachment portion. A gasket frame portion is noted (cols. 5-6.) With regard to claims 6 and 7, the step of engaging the plate with a monitor does not further limit the separator. Thus, these claims are anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meacher et al. (US 5,858,569) as applied above, and further in view of Hiroshi et al. (JP 11-339,828.)

Meacher et al. (US 5,858,569) teaches a separator for a fuel cell comprising a metal plate including a gas passage portion and a contact portion in a part other than the gas passage portion, the contact portion being brought into contact with a terminal of a cell voltage monitor attached to the fuel cell, wherein a surface treatment applied to the gas passage portion is different from a surface treatment applied to the contact portion. Meacher et al. (US 5,858,569) does not teach the contact portion being brought into contact with a terminal of a cell voltage monitor attached to the fuel cell.

Hiroshi et al. (JP 11-339,828) teaches a fuel cell stack with a voltage-measuring terminal attached to the sidewall of the separator plate. The fuel cell separator plates have a protruding terminal integral with the separator for measuring the voltage of each cell in the fuel cell stack. The separator may be graphite, aluminum and stainless steel (paragraph 28.) The terminal is engaged with a voltage monitor (paragraphs 12-29.) The attachment portion is attached in the direction wherein a plurality of frames are stacked as taught in figure 1. It would be obvious to one of ordinary skill in the art at the time the invention was made to attach a terminal in the

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manner taught by Hiroshi et al. (JP 11-339,828) to the frame portion of the separator plate of Meacher et al. (US 5,858,569) in order to measure the voltage of each cell in the fuel cell stack as taught by Hiroshi et al. (JP 11-339,828.) The attachment portion may be attached to the stainless steel frame by soldering or welding as taught by Hiroshi et al. (JP 11-339,828.)

It would further be obvious to one of ordinary skill in the art at the time the invention was made to apply a conductive coating to the stainless steel plate. Hiroshi et al. (JP 11-339,828) teaches the plate may be of aluminum or stainless steel. For example, one of ordinary skill in the art would be motivated to coat the stainless steel plate with an aluminum coating as Hiroshi et al. (JP 11-339,828) teaches aluminum as a conductive separator material that forms a bond with a protruding terminal. The artesian would have found the claimed invention to be obvious in light of the teachings of the references.

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Mark Ruthkosky

Primary Patent Examiner

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Mark Ruthkosky
6/12/05